

AMENDMENTS TO THE CLAIMS

- 1 1. (Currently amended) A method of displaying one or more periodically updated channels  
2 of electronic information received over a network from a content server, the method  
3 comprising the computer-implemented steps of:  
4 initiating execution, in a client computer that is coupled over a public network to one or  
5 more content servers, of a personal server that is hosted within the client;  
6 receiving and storing at the client, content channel information defining [[the]] a plurality  
7 of content channels available from [[various]] a plurality of sources associated  
8 with the one or more content servers;  
9 selecting a subset of channels from among [[a]] the plurality of available content  
10 channels;  
11 periodically retrieving updated channel content for the subset of channels from [[a]] the  
12 content [[server]] servers across [[a]] the public network, without communicating  
13 the channel selection information across the network;  
14 synthesizing one or more original, personalized electronic documents from the updated  
15 channel content from various sources;  
16 displaying the one or more documents;  
17 wherein the receiving, storing, selecting, retrieving and synthesizing are carried out by  
18 [[a]] the personal server that executes at the client.
- 1 2. (Previously presented) A method as recited in Claim 1, further comprising the steps of  
2 allowing the user to create and store at the client, custom, personalized virtual space  
3 organization information defining a spatial organization of content for the subset of  
4 channels, and wherein the step of synthesizing one or more electronic documents  
5 comprises the step of synthesizing one or more electronic documents that contain the  
6 updated channel content from various sources based on the virtual space information.
- 1 3. (Original) A method as recited in Claim 2, wherein the step of periodically retrieving  
2 updated channel content further comprises the steps of:

3 receiving an update specification for one channel among the subset of selected channels;  
4 identifying an update method and time value within the update specification;  
5 in accordance with the update specification, issuing a request for updated content data  
6 created after the time value, using the update method.

1 4. (Previously presented) A method as recited in Claim 1, further comprising the steps of  
2 receiving information defining a plurality of rendering contexts, wherein each of the  
3 rendering contexts is associated with one of the selected channels, and wherein the step  
4 of synthesizing one or more electronic documents comprises the step of rendering the  
5 electronic documents using the rendering context that is associated with one of the  
6 selected channels from which the updated channel content was obtained.

1 5. (Original) A method as recited in Claim 4, wherein each rendering context comprises  
2 a style sheet, template, script, helper reference, or applet.

1 6. (Previously presented) A method as recited in Claim 4, wherein the rendering context  
2 comprises a Cascading Style Sheet document, the updated channel content comprises  
3 HTML data, and wherein the synthesizing step comprises combining the rendering  
4 context with the updated channel content to result in creating and storing an HTML page  
5 that is capable of display by a browser.

1 7. (Previously presented) A method as recited in Claim 4, wherein the rendering context  
2 comprises a script, and wherein the synthesizing step comprises applying the updated  
3 channel content to the script as input, executing the script, and receiving output from the  
4 script that is capable of display by a browser.

1 8. (Previously presented) A method as recited in Claim 7, wherein the steps of receiving,  
2 selecting, retrieving, synthesizing, and displaying are carried out by a personal server that  
3 is executed at the client, and wherein the script is executed by an embedded processor in  
4 the personal server.

1    9. (Original) A method as recited in Claim 4, wherein the rendering context comprises a  
2    reference to a program that is stored at the client, and wherein the synthesizing step  
3    comprises executing the program using the updated channel content as input and  
4    receiving output from the program that is capable of display by a browser.

1    10. (Previously presented) A method as recited in Claim 4, wherein the rendering context  
2    comprises an applet, and wherein the synthesizing step comprises executing the applet  
3    using the updated channel content as input and displaying programmatic output from the  
4    applet using a browser.

1    11. (Original) A method as recited in Claim 1, further comprising the steps of:  
2    identifying whether the updated channel content contains an identification of an  
3    embedded channel;  
4    requesting second updated channel content for the embedded channel.

1    12. (Previously presented) A method as recited in Claim 1, wherein the step of synthesizing  
2    one or more electronic documents further comprises the steps of:  
3    receiving the updated channel content, a virtual space specification, and a page  
4    organization specification;  
5    replacing one or more tokens in the updated channel content with other channel content  
6    information or personal content information located on the client;  
7    iterating the replacing step over all updated channel content for all channels that are  
8    identified in the channel selection information.

1    13. (Previously presented) A method as recited in Claim 1, wherein the step of synthesizing  
2    one or more electronic documents further comprises the steps of  
3    receiving the updated channel content, a virtual space specification, and a page  
4    organization specification;

5 receiving information defining a plurality of rendering contexts, wherein each of the  
6 rendering contexts is associated with one of the selected channels;  
7 replacing one or more tokens in the updated channel content with other channel content  
8 information or personal content information located on the client;  
9 iterating the replacing step over all updated channel content for all channels that are  
10 identified in the second information;  
11 creating one or more static content elements in an electronic document based on a  
12 rendering context that is associated with one of the selected channels from which  
13 the updated channel content was obtained

1 14. (Cancelled)

1 15. (Previously presented) A method as recited in Claim 1, further comprising the step of  
2 generating and displaying a user interface display that includes a list of available  
3 channels, wherein the list of available channels is created based on issuing a query to a  
4 channel database that is stored in association with a personal server executed at the client  
5 that carries out the synthesizing and displaying steps.

1 16. (Previously presented) A method as recited in Claim 1, further comprising the step of  
2 generating and displaying a user interface display that includes a list of available  
3 channels, wherein the list of available channels is created based on issuing a query to a  
4 channel database that is stored in association with a personal server executed at the client  
5 that carries out the synthesizing and displaying steps, and based on a user-specific  
6 channel topology that is retrieved from the channel database.

1 17. (Original) A method as recited in Claim 1, further comprising the steps of  
2 rescheduling the retrieving step when the updated channel content cannot be retrieved  
3 immediately.

1    18. (Original) A method as recited in Claim 1, wherein displaying the one or more  
2    electronic documents comprises the steps of delivering the electronic documents from a  
3    personal server executed in the client to a browser executed in the client over a TCP/IP  
4    loopback interface of the client.

1    19. (Original) A method as recited in Claim 1, wherein displaying the one or more  
2    electronic documents comprises the steps of:  
3       providing a Web server and a browser in association with the client;  
4       loading one or more virtual display spaces from a personal server that is provided in the  
5       client;  
6       generating a view of the one or more virtual display spaces by using the browser to  
7       request the one or more virtual display spaces from the Web server over a  
8       loopback interface of the client.

1    20. (Original) A method as recited in Claim 19, wherein the step of generating a view  
2    includes the step of directing the browser to display information located at a hostname  
3    that is associated with the loopback interface of the client.

1    21. (Original) A method as recited in Claim 19, further comprising the steps of:  
2       binding the Web server of the client to a pre-defined port that is associated with the  
3       loopback interface of the client;  
4       placing the Web server in a listening mode;  
5       using the browser, issuing a display request to a hostname that is associated with the  
6       loopback interface.

1    22. (Original) A method as recited in Claim 19, further comprising the steps of:  
2       examining the IP address of the request;

3           determining whether requests from the IP address are permitted to view the virtual  
4           display space, based on a stored mapping of IP addresses to identifiers of virtual  
5           display spaces;  
6           generating a view of the electronic documents from the virtual display space only when  
7           requests from the IP address are permitted to view the virtual display space.

1   23. (Original) A method as recited in Claim 19, further comprising the steps of:  
2           rendering the requested one or more documents from the loaded virtual display space  
3           using a Web page synthesizer that is provided in the personal server;  
4           providing the rendered one or more electronic documents to the Web server;  
5           serving the rendered one or more electronic documents from the Web server to the  
6           browser over the loopback interface.

1   24. (Original) A method as recited in Claim 19, wherein the embedded Web server is a  
2           proxy server that binds to an arbitrary port.

1   25. (cancelled)

1   26. (Currently amended) A computer-readable medium carrying one or more sequences of  
2           instructions for displaying one or more periodically updated channels of electronic  
3           information received over a network from a content server, which instructions, when  
4           executed by one or more processors, cause the one or more processors to carry out the  
5           steps of:  
6           initiating execution, in a client computer that is coupled over a public network to one or  
7           more content servers, of a personal server that is hosted within the client;  
8           receiving and storing at the client, content channel information defining [[the]] a plurality  
9           of content channels available [[from]] a plurality of various sources associated  
10           with the one or more content servers;  
11           selecting a subset of channels from among a plurality of available content channels;

12       periodically retrieving updated channel content for the subset of channels from [[a]] the  
13       content [[server]] servers across [[a]] the public network, without communicating  
14       the channel selection information across the network;  
15       synthesizing one or more original, personalized electronic documents from the updated  
16       channel content from various sources;  
17       displaying the one or more documents;  
18       wherein the receiving, storing, selecting, retrieving and synthesizing are carried out by  
19       [[a]] the personal server that executes at the client.

1     27. (Currently amended) An apparatus for displaying one or more periodically updated  
2       channels of electronic information received over a network from a content server,  
3       comprising:  
4       means for initiating execution, in a client computer that is coupled over a public network  
5       to one or more content servers, of a personal server that is hosted within the  
6       client;  
7       means for receiving and storing at the client, content channel information defining [[the]]  
8       a plurality of content channels available from [[various]] a plurality of sources  
9       associated with the one or more content servers;  
10      means for selecting a subset of channels from among a plurality of available content  
11       channels;  
12      means for periodically retrieving updated channel content for the subset of channels from  
13       [[a]] the content [[server]] servers across [[a]] the public network, without  
14       communicating the channel selection information across the network;  
15      means for synthesizing one or more original, personalized electronic documents from the  
16       updated channel content from various sources;  
17      means for displaying the one or more documents;  
18       wherein [[carried out by a]] the personal server that executes at the client comprises the  
19       receiving, storing, selecting, retrieving and synthesizing means.

1    28. (Currently amended) An apparatus for displaying one or more periodically updated  
2    channels of electronic information received over a network from a content server,  
3    comprising:  
4        a network interface that is coupled to the data network for receiving one or more packet  
5        flows therefrom;  
6        one or more processors;  
7        one or more stored sequences of instructions which, when executed by the processors,  
8        cause the processors to carry out the steps of:  
9            initiating execution, in a client computer that is coupled over a public network to one or  
10          more content servers, of a personal server that is hosted within the client;  
11          receiving and storing at the client, content channel information defining [[the]] a plurality  
12          of content channels available [[from]] a plurality of various sources associated  
13          with the one or more content servers;  
14          selecting a subset of channels from among a plurality of available content channels;  
15          periodically retrieving updated channel content for the subset of channels from [[a]] the  
16          content [[server]] servers across [[a]] the public network, without communicating  
17          the channel selection information across the network;  
18          synthesizing one or more original, personalized electronic documents from the updated  
19          channel content from various sources;  
20          displaying the one or more documents;  
21          wherein the receiving, storing, selecting, retrieving and synthesizing are carried out by  
22          [[a]] the personal server that executes at the client.

1    29. (Currently amended) A personal server that executes at and is hosted within [[the]] a  
2    client and is capable of displaying one or more periodically updated channels of  
3    electronic information received over a network from [[a]] one or more content [[server]]  
4    servers that are coupled through the network to the client, comprising:  
5        a channel manager configured to receive and store, in a channel database of the personal  
6        server, channel selection information defining a subset of channels that are  
7        selected from among a plurality of available content channels associated with the

8           one or more content servers, and to periodically retrieve updated channel content  
9           for the subset of channels from [[a]] the content [[server]] servers across [[a]] the  
10          public network, without communicating the channel selection information across  
11          a network;

12          a page synthesizer configured to synthesize one or more original, personalized electronic  
13          documents that contain the updated channel content from various sources and to  
14          provide the one or more electronic documents to a browser for display.

1       30. (Previously presented)       A personal server as recited in Claim 29, further  
2       comprising:  
3           a virtual space designer configured to receive and store virtual space organization  
4           information defining an organization of content for the subset of channels within a  
5           virtual display space;  
6           a virtual space manager configured to synthesize one or more original, personalized  
7           electronic documents that contain the updated channel content based on the  
8           virtual space organization information in coordination with the page synthesizer.

1       31. (New) An apparatus as recited in Claim 27, further comprising means for allowing the  
2       user to create and store at the client, custom, personalized virtual space organization  
3       information defining a spatial organization of content for the subset of channels, and  
4       wherein the means for synthesizing one or more electronic documents comprises means  
5       for synthesizing one or more electronic documents that contain the updated channel  
6       content from various sources based on the virtual space information.

1       32. (New) An apparatus as recited in Claim 27, further comprising means for receiving  
2       information defining a plurality of rendering contexts, wherein each of the rendering  
3       contexts is associated with one of the selected channels, and wherein the means for  
4       synthesizing one or more electronic documents comprises means for rendering the  
5       electronic documents using the rendering context that is associated with one of the  
6       selected channels from which the updated channel content was obtained.

1    33. (New) An apparatus as recited in Claim 27, wherein the means for synthesizing one or  
2       more electronic documents further comprises:  
3       means for receiving the updated channel content, a virtual space specification, and a page  
4           organization specification;  
5       means for replacing one or more tokens in the updated channel content with other  
6           channel content information or personal content information located on the client;  
7       means for iterating the replacing step over all updated channel content for all channels  
8           that are identified in the channel selection information.

1    34. (New) An apparatus as recited in Claim 27, wherein the means for displaying the one or  
2       more electronic documents comprises means for delivering the electronic documents  
3       from a personal server executed in the client to a browser executed in the client over a  
4       TCP/IP loopback interface of the client.

1    35. (New) An apparatus as recited in Claim 27, wherein the means for displaying the one or  
2       more electronic documents comprises:  
3       means for providing a Web server and a browser in association with the client;  
4       means for loading one or more virtual display spaces from a personal server that is  
5           provided in the client;  
6       means for generating a view of the one or more virtual display spaces by using the  
7           browser to request the one or more virtual display spaces from the Web server  
8           over a loopback interface of the client.

1    36. (New) An apparatus as recited in Claim 28, further comprising instructions which when  
2       executed cause allowing the user to create and store at the client, custom, personalized  
3       virtual space organization information defining a spatial organization of content for the  
4       subset of channels, and wherein the instructions for synthesizing one or more electronic  
5       documents comprise instructions which when executed cause synthesizing one or more

6           electronic documents that contain the updated channel content from various sources  
7           based on the virtual space information.

1       37. (New) An apparatus as recited in Claim 28, further comprising instructions which when  
2           executed cause receiving information defining a plurality of rendering contexts, wherein  
3           each of the rendering contexts is associated with one of the selected channels, and  
4           wherein the instructions for synthesizing one or more electronic documents comprise  
5           instructions which when executed cause rendering the electronic documents using the  
6           rendering context that is associated with one of the selected channels from which the  
7           updated channel content was obtained.

1       38. (New) An apparatus as recited in Claim 28, wherein the instructions for synthesizing one  
2           or more electronic documents further comprise instructions which when executed cause:  
3           receiving the updated channel content, a virtual space specification, and a page  
4           organization specification;  
5           replacing one or more tokens in the updated channel content with other channel content  
6           information or personal content information located on the client;  
7           iterating the replacing step over all updated channel content for all channels that are  
8           identified in the channel selection information.

1       39. (New) An apparatus as recited in Claim 28, wherein the instructions for displaying the  
2           one or more electronic documents comprise instructions which when executed cause  
3           delivering the electronic documents from a personal server executed in the client to a  
4           browser executed in the client over a TCP/IP loopback interface of the client.

1       40. (New) An apparatus as recited in Claim 28, wherein the instructions for displaying the  
2           one or more electronic documents comprise instructions which when executed cause:  
3           providing a Web server and a browser in association with the client;  
4           loading one or more virtual display spaces from a personal server that is provided in the  
5           client;

6 generating a view of the one or more virtual display spaces by using the browser to  
7 request the one or more virtual display spaces from the Web server over a  
8 loopback interface of the client.